pending with this response is provided in Appendix II.

SUPPORT FOR AMENDMENTS TO THE CLAIMS

Claim 1 has been amended to replace the term "80%" with the term "85%" to more clearly define Applicant's invention. Support for the term 85% can be found at, e.g., page 15, first paragraph, describing both at least 80% and at least 90% sequence identity.

Claim 1 has also been amended to include the term "or a complementary sequence thereof." Support for this term can be found at, e.g., page 5, lines 19-20 ("Polynucleotides of the present invention also include, but are not limited to, a polynucleotide complementary to the nucleotide sequence of SEQ ID NO:1").

Claim 1 has also been amended to include the term "wherein the nucleic acid encodes a polypeptide that binds a C terminus of GRIP1." Support for this term can be found at, e.g., page 22, line 27 to page 23, line 22 ; Example 1, starting at page 32; and Example 3, starting at page 34 (all described in further detail below).

New Claim 51 is dependent on Claim 1, and is directed to nucleic acids encoding polypeptides with methyltransferase activity. Support for this claim can be found at, e.g., the section "Methyltransferase Activity" beginning at the bottom of page 29.

New Claim 52 is dependent on Claim 1, and is directed to nucleic acids encoding polypeptides with coactivator activity. Support for this claim can be found at, e.g., "Example 4: Enhancement of GRIP1 and NR function by secondary coactivator CARM1" beginning on page 35.

The amendments to the claims therefore add no new matter.

ELECTION/RESTRICTION REQUIREMENT

Pursuant to the restriction requirement made final, Applicant cancels claims 4-48 with entry of this amendment. Applicant reserves the right to file subsequent applications claiming

the canceled subject matter. In addition, the claim cancellations should not be construed as abandonment or agreement with the Examiner's position in the Office Action.

REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH
WRITTEN DESCRIPTION

Claims 1-3 and 39-47 were rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Applicant traverses by amendment and argument.

The Examiner stated that

> The specification as filed fails to provide support for the current limitations to nucleic acids with particular amounts of sequence identity to only nucleotides 1-2100 of SEQ ID NO:1. Nowhere in the specification is the fragment 1-2100 of SEQ ID NO:1 specifically recited as defining applicants invention.

Without agreeing with the Examiner's rejection but to expedite prosecution of this application, Applicant has amended Claims 1 and 39 to delete the reference to nucleotides 1-2100.

The Examiner also stated that

> The specification does not contain any disclosure of the function of all nucleic acid molecules with which are at least 80% or 90% or 95% identical to nucleotides 1-2100 of SEQ ID NO:1. . .

Applicant has amended Claims 1 and 39 to more clearly describe Applicant's invention: nucleic acids that are at least 85% identical to SEQ ID NO:1, encoding polypeptides having the function of binding to the C terminal domain of GRIP1. Written description support for nucleic acids coding for polypeptides having this function can be found throughout the specification as filed, e.g., SEQ ID NO:1 and SEQ ID NO:3. In addition, the specification clearly teaches that the claimed nucleic acids code for proteins that bind the GRIP1 C-terminal domain. See, for

example, page 22, line 27 to page 23, line 22 (generally describing dominant negative mutants of CARM1); Example 1, starting at page 32 (describing isolation of the CARM1 cDNA using GRIP1 C-terminal domain as bait in a yeast two hybrid); and Example 3, starting at page 34 (describing binding of both CARM1 and a CARM1 mutant to the GRIP1 C-terminal domain).

Therefore, the specification provides ample written description support for the amended claims, and Applicant requests withdrawal of this basis of rejection.

REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH
ENABLEMENT

Claims 1-3 and 39-47 were rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant traverses by amendment and argument.

The Examiner stated that

> . . .the specification, while being enabling for SEQ ID NO:1, does not reasonably provide enablement for any nucleic acid comprising a sequence 80% (or 90% or 95%) identical to SEQ ID NO:1.

Applicant has amended Claims 1 and 39 to more clearly describe Applicant's invention: nucleic acids that are at least 85% identical to SEQ ID NO:1, encoding polypeptides having the function of binding to the C terminal domain of GRIP1. As Applicant has argued before in response to the earlier Office Action, one of skill could readily identify sequences that are at least 85% identical to SEQ ID NO:1, using techniques that are well known to one of skill in the art. In addition, the specification fully enables one of skill to identify those nucleic acids that encode polypeptides having the function of binding to the C terminal domain of GRIP1, as described above in Applicant's traversal of the Written Description rejection.

Therefore, the specification fully enables the amended claims, and Applicant requests withdrawal of this basis of rejection.

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REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-3 are rejected under 35 U.S.C. 102(a) as allegedly being unpatentable over Chen et al. Applicant maintains the earlier argument that Chen et al is not available as prior art as it was published after the priority date of Applicant's application. Applicant claims priority to provisional application 60/112,523 with a filing date of December 15, 1998. The Examiner stated that

> This is not persuasive as the provisional application fails to provide support for the current claim limitations to 80% . . .identity to specifically nucleotide 1-2100 of SEQ ID NO:1.

Claim 1 has been amended to delete the language regarding nucleotides 1-2100, rendering this rejection moot. Withdrawal of this rejection is respectfully requested.

REGARDING ART PREVIOUSLY CITED BY THE EXAMINER

Applicant notes that, in an earlier Office Action, the Examiner cited Lal et al and GenBank entries AA396116 and AA215095 as anticipating the claims pending at that time, which did not contain the "nucleotides 1-2100" language. In the interest of expediting prosecution, Applicant respectfully points out that the nucleic acid sequence disclosed by Lal et al is only 83% identical to nucleotides 290-2567 of SEQ ID NO:1, and therefore does not anticipate Applicant's claims to a sequence that is at least 85% identical to SEQ ID NO:1. In addition, GenBank entries AA396116 and AA215095 do not encode polypeptides that bind the C terminal domain of GRIP1.

CONCLUSION

Withdrawal of the pending rejections and reconsideration of the claims are respectfully requested, and a notice of allowance is earnestly solicited. If the Examiner has any questions concerning this Response, the Examiner is respectfully requested to telephone Applicant's representative **Antoinette Konski** at (650) 849-4950.

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Attorney Docket No: 13761-0726-US1
Client Docket No: 2804

Respectfully submitted,

Dated: January 9, 2003

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Appendix I

Version of the Amendments to the Claims with Markings to Show Changes Made

1. (Amended) An isolated nucleic acid molecule comprising a sequence that has at least about ~~80%~~ 85% sequence identity to ~~the sequence of nucleotides ranging from nucleotide 1 to nucleotide 2100 of~~ SEQ ID NO:1 or a complementary sequence thereof, wherein the nucleic acid encodes a polypeptide that binds a C terminus of GRIP1.

4-38. Cancelled herein

39. (Amended) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule encodes a polypeptide comprising ~~a sequence substantially equivalent to~~ SEQ ID NO:2.

42. (Amended) ~~An isolated nucleic acid molecule comprising~~ The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises a sequence that has at least about 90% sequence identity to ~~a polynucleotide comprising the sequence of nucleotides ranging from nucleotide 1 to nucleotide 2100 of~~ SEQ ID NO:1.

45. (Amended) ~~An isolated nucleic acid molecule comprising~~ The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises a sequence that has at least about 95% sequence identity to ~~a polynucleotide comprising the sequence of nucleotides ranging from nucleotide 1 to nucleotide 2100 of~~ SEQ ID NO:1.

48. (New) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises SEQ ID NO:1.

49. (New) A recombinant vector comprising the nucleic acid molecule of claim 45.

50. (New) A genetically engineered cell comprising the recombinant vector of claim 46.

51. (New) The isolated nucleic acid molecule of claim 1, wherein the polypeptide comprises methyltransferase activity.

52. (New) The isolated nucleic acid molecule of claim 1, wherein the polypeptide comprises coactivator activity.

Appendix II

Currently Pending Claims

1. (Amended) An isolated nucleic acid molecule comprising a sequence that has at least about 85% sequence identity to SEQ ID NO:1 or a complementary sequence thereof, wherein the nucleic acid encodes a polypeptide that binds a C terminus of GRIP1.

2. (Reiterated) A recombinant vector comprising the nucleic acid molecule of Claim 1.

3. (Reiterated) A genetically engineered cell comprising the recombinant vector of Claim 2.

4-38. Cancelled herein

39. (Amended) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule encodes a polypeptide comprising SEQ ID NO:2.

40. (Reiterated) A recombinant vector comprising the nucleic acid molecule of claim 39.

41. (Reiterated) A genetically engineered cell comprising the recombinant vector of claim 40.

42. (Amended) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises a sequence that has at least about 90% sequence identity to SEQ ID NO:1.

43. (Reiterated) A recombinant vector comprising the nucleic acid molecule of claim 42.

44. (Reiterated) A genetically engineered cell comprising the recombinant vector of claim 43.

45. (Amended) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises a sequence that has at least about 95% sequence identity to SEQ ID NO:1.

46. (Reiterated) A recombinant vector comprising the nucleic acid molecule of claim 45.

47. (Reiterated) A genetically engineered cell comprising the recombinant vector of claim 46.

48. (New) The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises SEQ ID NO:1.

49. (New) A recombinant vector comprising the nucleic acid molecule of claim 45.

50. (New) A genetically engineered cell comprising the recombinant vector of claim 46.

51. (New) The isolated nucleic acid molecule of claim 1, wherein the polypeptide comprises methyltransferase activity.

52. (New) The isolated nucleic acid molecule of claim 1, wherein the polypeptide comprises coactivator activity.